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10/559,943

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Chan Mun Keong

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EXAMINER

AHMED, SELIM U

ART UNIT

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2826

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/559,943 | KEONG ET AL. | |
| | Examiner | Art Unit | |
| | SELIM AHMED | 2826 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's response filed on 11/20/2008 is acknowledged. Applicants have canceled all previous claims 1-22 and added new claims 23-38. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 23-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Fukasawa et al (US 2004/0188700; Fukasawa hereinafter).

With regard to claim 23, Fukasawa discloses a surface mountable light emitting device e.g. Figs. 9, 13, comprising: a first light emitting semiconductor chip 20 secured with a body 12; a first thermally and electrically conductive lead frame 13 connected to said first chip 20 and exposed over a portion of an underside of the body (e.g. Fig. 12); a first lead wire 27 from said first chip to a first contact 13 exposed at least partially on a side of the body (e.g. Fig. 9); and a first lens 36 substantially encasing an upper surface (e.g. Fig. 9) of said first chip 20, where the first lens 36 forms part of the body 12 about the first lead frame 13 and redistributes radiant emissions from the first chip externally into a substantial solid angle.

The applicant's claim 23 does not distinguish over the Fukasawa reference regardless of the functions allegedly performed by the claimed device, because only the device per se is relevant, not the recited function of redistributing radiant emissions from the first chip externally into a substantial solid angle.

Note that functional language in a device claim is directed to the device per se, no matter which of the device's functions is referred to in the claim.

Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990) ("[A]pparatus claims cover what a device *is*, not what a device *does*" [emphasis in original]); *In re King*, 231 USPQ 136 (Fed. Cir. 1986) ("It did not suffice merely to assert that [the cited prior art] does not inherently achieve [the claimed function], challenging the PTO to prove the contrary by experiment or otherwise. The PTO is not equipped to perform such tasks"); *In re Best*, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977) (claiming a new use, new function or unknown property which is inherently present in the prior art does not necessarily make the claim patentable); and *Ex parte Smith*, 83 USPQ2d 1509, 1514 (Bd. Pat. App. & Int. 2007) ("Where, as here, the claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product"). See MPEP § 2114.

In this case, it is reasonable to assume that Fukasawa's device is capable of redistributing radiant emissions from the first chip externally into a substantial solid angle because a comparison of Applicant's specification to Fukasaw's disclosure reveals that **Fukasaw** discloses a device that is apparently identical to the device Applicant describes as being capable of performing the function of redistributing radiant emissions from the first chip externally into a substantial solid angle. Because it is reasonable to assume that assume that **Fukasawa's**

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device is capable of performing the claimed function, the burden shifts to Applicants to show that it is not. See MPEP § 2114.

With regard to claim 24, e.g. para[0074], Fig.9 of Fukasawa discloses the device of claim 23, wherein the first lens comprises a generally transparent compound that is keyed into the first conductive lead frame and said first contact.

With regard to claim 25, e.g. Fig. 9, para[0072] of Fukasawa discloses the device of claim 23, further comprising: a reflector cup 40 about said first chip 20 that reflects light from sides of the first chip 20 generally into a direction extending from the upper surface of said first chip 20.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Fukasawa as applied to claim 25 in view of Ibbetson et al (US 2004/0227149: Ibbetson hereinafter).

With regard to claim 26, Fukasawa discloses all of the limitations of claim 25 and additionally said reflector cup 40 comprise a core material 40 but does not disclose a highly reflective metallic coating. However, in e.g. Fig.3, Ibbetson discloses a highly reflective metallic coating 64 (para[0043]) on a support region 49 i.e. reflector cup. It would have been obvious to one having ordinary skill in the art at the time of the invention to include Ibbetson's reflective metallic coating 64 with Fukasawa's reflector cup 40 for predictable results.

4. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukasawa as applied to claim 2 in view of Minano et al (US 7,021,797: Minano hereinafter).

With regard to claim 27 and 28, Fukasawa discloses all of the limitations of claim 23 with the exception of wherein the first lens 36 comprises a lower transfer section operable for placement upon the first light emitting semiconductor chip and an upper ejector section situated upon the lower transfer section such that the radiant emissions are transferred through the lower transfer section to the upper ejector section where the radiant emissions are redistributed externally from the upper ejector section into the substantial solid angle.

However, in e.g. Fig. 2 of Minano discloses the first lens 10 comprises a lower transfer section 11 operable for placement upon the first light emitting semiconductor chip and an upper ejector section 12 situated upon the lower transfer section such that the radiant emissions are transferred through the lower transfer section 11 to the upper ejector section 12 where the radiant emissions are redistributed externally from the upper ejector section into the substantial solid angle (e.g. col.4, lines 52-62; claim 1). It would have been obvious to one having ordinary skill in the art at the time of the invention to substitute Fukasawa's lens 36 with Minano's lens 10 for predictable results.

With regard to claim 29, Fukasawa discloses all of the limitation of claim 23 but does not disclose the first lens further comprises an upper ejector section situated such that the radiant emissions are transferred from the first chip to the upper ejector section such that the radiant emissions are redistributed externally from the upper ejector section into the substantial solid angle. However, in e.g. Fig. 2, col. 4, lines 52-62 of Fukasawa discloses the first lens 10 further comprises an upper ejector section 12 situated such that the radiant emissions are transferred from the first chip to the upper ejector section such that the radiant emissions are redistributed externally from the upper ejector section into the substantial solid angle. It would have been obvious to one having ordinary skill in the art at the time of the invention to substitute Fukasawa's lens 36 with Minano's lens 10 with upper ejector section 12 for predictable results.

With regard to claim 30, Fukasawa in view of Minano discloses all of the limitations of claim 29 and in e.g. Fig. 2, Minano further discloses the first upper ejector section 12 is a cylinder having a conical depression 13 on its top surface. It would have been obvious to one having ordinary skill in the art at the time of the invention to substitute Fukasawa's lens 36 with Minano's lens 10 with upper ejector section 12 having a conical depression 13 on its top surface for predictable results.

With regard to claim 35, Fukasawa discloses a surface mountable light emitting device e.g Fig. 9, comprising: a light emitting semiconductor chip 20 incorporated into a body 12; a conductive lead frame 13 connected to said chip 20 and exposed on an underside (e.g. Fig. 9) of the body 12; and a lens over 36 said chip 20 and positioned on an opposite side (e.g. Fig. 9) of the body 12 as the underside of the body 12.

As discussed above, Fukasawa all of the limitations of claim 35 with the exception of the lens comprises: a lower transfer section; and an upper ejector section situated upon the lower transfer section, said lower transfer section operable for placement upon the light emitting semiconductor chip and operable to transfer the radiant emission to said upper ejector section, said upper ejector section shaped such that the emission is redistributed externally into a substantial solid angle. However, in e.g. Fig. 2 of Minano discloses the lens 10 comprises: a lower transfer section 11; and an upper ejector section 12 situated upon the lower transfer section 11, said lower transfer section 11 operable for placement upon the light emitting semiconductor chip 24 and operable to transfer the radiant emission to said upper ejector section 12, said upper ejector section shaped such that the emission is redistributed externally into a substantial solid angle (e.g. col.4, lines 52-62; claim 1).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 31-34, 36-38 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Combinations of the following elements are recited in claim 31:

- First and second light emitting semiconductor chips.
- First and second lead frames
- First and second lead wires
- First and second contact
- First lens and second lens
- A body
- A side of the body

However, there appear to no written description of at least for the following elements and their combinations as newly claimed in the application as filed:

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- A second contact (in combination with second lead wire, second chip, the side, the body)
- A second lens (in combination with encasing an upper surface of second chip)
- A second lead frame (in combination with second chip, the body)

Applicant has pointed out that the new claims are particularly supported in Figs. 1, 3A-B, 4A-B and 7 and the corresponding descriptions of these Figs. However, after reviewing the figures and corresponding descriptions, there appear to be at least no written description of the claim limitation 'a second thermally and electrically conductive lead frame connected to said second chip and exposed on the underside of the body; a second lead wire from said second chip to a second contact exposed at least partially on the side of said body; and a second lens substantially encasing an upper surface of said second chip' in the application as filed.

With regard to claims 32 and 33, since they are dependent claims, they inherit at least the same deficiencies as claim 31.

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With regard to claim 34, additionally there appear to be no written description of the claim limitation 'the first lens substantially encases the upper surface of the first chip, and the first lens extends to form part of the body about the first and second conductive lead frames' in the application as filed.

With regard to claim 36, 37 and 38, since they are dependent claims, they inherit the same deficiencies as claim 34.

See MPEP section 2163.04, (I)(B).

Response to Arguments

6. Applicant's arguments with respect to claims 23-38 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SELIM AHMED whose telephone number is (571)270-5025. The examiner can normally be reached on 9:00 AM-6:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sue Purvis can be reached on (571) 272-1236. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SA

/Evan Pert/
Primary Examiner, Art Unit 2826